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EXAMINER

SYED, FARHAN M

ART UNIT	PAPER NUMBER
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2165

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/777,577	Applicant(s) ROY ET AL.	
	Examiner Farhan M. Syed	Art Unit 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date (<u>See Attached Sheet</u>). | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-28 are pending.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 13 February 2006, 13 October 2005, 5 July 2005, 20 June 2005, 25 October 2004, and 12 February 2004, respectively, have been considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirani et al (U.S. Patent Pub. 2002/0016818 A1 and known hereinafter as Kirani) in view of Gresham et al (U.S. Patent Pub. 2002/0160773 A1 and known hereinafter as Gresham).

As per claims 1, 13, 17, 21 and 25, Kirani teaches a communications system comprising: a plurality of data storage devices each using at least one of a plurality of different operating protocols (i.e. "During operation, a server (which embodies the present invention) determines the type of device the recipient is using. This determination may be based on previously-set

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configuration information (e.g., using user-specified configuration settings), or may be detected dynamically (e.g., during a request to retrieve e-mail messages from a particular user's e-mail in-box). In instances where compatibility with existing communication protocols (e.g., SMTP) is desired, client device configuration information is specified by the recipient user beforehand, for instance, via a Web-page data entry form. If compatibility with existing communication protocols is not required, a communication protocol may be employed that includes protocol commands that allow the capabilities of a target device to be determined.")(Paragraph [0065]); a plurality of mobile wireless communications devices for accessing said data storage devices and each using at least one of the plurality of different operating protocols (i.e. "The present invention provides supplementary e-mail-delivery processing adding value to the established e-mail systems serving their senders and receivers. This includes protecting a given e-mail recipient, who is typically using a handheld wireless client device or other portable device, from confronting an oversized attachment, and further includes providing the recipient with options for how to receive large e-mail attachments. Additionally, the present invention includes built-in intelligence for filtering e-mail attachments according to the capabilities of a particular recipient's device type.")(Paragraph [0063]); and a protocol engine module for communicating with said plurality of data storage devices using respective operating protocols (i.e. "WAP: Abbreviation for Wireless Application Protocol. WAP is a communication protocol, not unlike TCP/IP, that was developed by a consortium of wireless companies, including Motorola, Ericsson, and Nokia, for transmitting data over wireless networks. For a description of WAP, see e.g., Mann, S., The Wireless Application Protocol, Dr. Dobb's Journal, pp. 56-66, October 1999, the disclosure of which is hereby incorporated by reference." "In cases wherein the capabilities of the client device are determined by database records of antecedent user interactions and where the user uses multiple types of client devices to receive messages from the system, the present invention applies a transformation on the current attachment that corresponds to the least capable in the set of those multiple devices. When applying a protocol allowing determination of recipient device type (e.g., Wireless Application Protocol (WAP)), the present invention may automatically perform the optimum transformation/formatting specific to the

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targeted type of device, thereby rendering user input unnecessary. In such a WAP-enabled embodiment, if the user used several types of client devices to receive e-mail, the system is capable of automatically delivering and storing multiple formats of all the multimedia attachments." "When applying a protocol allowing determination of recipient device type (e.g., Wireless Application Protocol (WAP)), the present invention may automatically perform the optimum transformation specific to the targeted type of device, thereby rendering user input unnecessary. In such a WAP-enabled embodiment, if the user used several types of client devices to receive e-mail, the system is capable of automatically delivering and storing multiple formats of all the multimedia attachments.")(Paragraphs [0030, 0039, 0077]), said front-end proxy module and said protocol engine module communicating using a common interface protocol able to represent a desired number of protocol-supported elements for a desired operating protocol (i.e. "CGI is an acronym for Common Gateway Interface, a specification for transferring information between a World Wide Web server and a CGI program. A CGI program is any program designed to accept and return data that conforms to the CGI specification. The program could be written in any programming language, including C, Perl, Java, or Visual Basic." "System 200 includes a graphical user interface (GUI) 215, for receiving user commands and data in a graphical (e.g., "point-and-click") fashion. These inputs, in turn, may be acted upon by the system 100 in accordance with instructions from operating system 210, and/or client application module(s) 201. The GUI 215 also serves to display the results of operation from the OS 210 and application(s) 201, whereupon the user may supply additional inputs or terminate the session. Typically, the OS 210 operates in conjunction with device drivers 220 (e.g., "Winsock" driver--Windows' implementation of a TCP/IP stack) and the system BIOS microcode 230 (i.e., ROM-based microcode), particularly when interfacing with peripheral devices. OS 210 can be provided by a conventional operating system, such as Microsoft.RTM. Windows 9x, Microsoft.RTM. Windows NT, Microsoft.RTM. Pocket PC, Microsoft.RTM. Windows 2000, or Microsoft.RTM. Windows XP, all available from Microsoft Corporation of Redmond, Wash. Alternatively, OS 210 can also be an alternative operating system, such as the previously-mentioned operating systems.")(paragraph [0013, 0059]).

Kirani does not explicitly teach a communication system wherein a protocol interface device comprising a front-end proxy module for communicating with said plurality of mobile wireless communications devices using respective operating protocols.

Gresham teaches a protocol interface device comprising a front-end proxy module for communicating with said plurality of mobile wireless communications devices using respective operating protocols (i.e. "It should be noted that the message flow between terminal 40 and server 20 approximates the normal message flow that would occur between the terminal and the message server (e.g., the message server 195 of FIG. 1) if the terminal were operating in its normal environment. Similarly, the message flow between station 90 and the message server 195 also approximates the normal message flow that would occur between the terminal 40 and the message server if the terminal were operating in its normal environment. However, the quantity of messages flowing between the server 20 and station 90 are minimized in order to reduce the traffic flow on the relatively bandwidth limited wireless connection between the aircraft and the communication service provider networks 80 or 81 (see FIG. 1). Thus, the proxy operation of the present invention allows the end user (i.e., the passenger) to utilize the terminal 40 in the normal manner such that, from all external appearances, the terminal is coupled directly to the message server 195. Similarly, the proxy operation of the present invention allows the message server 195 to communicate in a manner as if the message server 195 were coupled to the terminal 40 in a conventional fashion.")(Paragraph [0148], Gresham).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Kirani with the teachings of Gresham to include a communication system wherein a protocol interface device comprising a front-end proxy module for communicating with said plurality of mobile wireless communications devices using respective operating protocols. with the motivation to

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transferring and displaying multimedia data on various types of devices, particularly those with wireless connectivity (Paragraph [0004], Kirani).

As per claims 2, 14, 18, 22 and 26, Kirani teaches a communications system wherein said plurality of data storage devices, said plurality of mobile wireless communications devices, and said protocol interface device process electronic mail (e-mail) messages (i.e. "An e-mail system that re-packages message attachments optimized for delivery to wireless handheld devices is described. The preferred embodiment provides an optimization of the e-mail deliveries to allow for the recipients to receive e-mail attachments at a time and in a size/format as desired. The preferred embodiment compares the size of attached images to the capabilities of the type of the recipient client device, and preempts delivery of the original format of those attachments if they are determined to be burdensome or overwhelming. In cases wherein these attachments would strain the capabilities of the recipient devices' wireless bandwidth and/or display features, the original attachments are removed from the messages and do not accompany the e-mail delivery. Any detached attachment is saved in a network media-sharing repository, and can be subsequently accessed via a link (e.g., URL) referencing that storage address. Recipients can specify their wireless handheld device types, and opt to receive transformations of this type of attachment as a default substitute in subsequent e-mail deliveries. In cases wherein the recipient has previously used multiple types of client devices when receiving messages from the system, the present invention applies a transformation on the current attachment that corresponds to the least capable in the set of those multiple devices. Recipients may also elect to receive the URL for the network storage address of copies of either the original and/or transformed attachments.")(Abstract).

As per claims 3, 15, 19, 23 and 27, Kirani teaches a communications system wherein the common interface protocol is able to represent all protocol-supported

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elements for a most capable operating protocol (i.e. "CGI is an acronym for Common Gateway Interface, a specification for transferring information between a World Wide Web server and a CGI program. A CGI program is any program designed to accept and return data that conforms to the CGI specification. The program could be written in any programming language, including C, Perl, Java, or Visual Basic." "In basic system operation, the message originator (sender) 300 sends a message along with an attachment across the Internet 310a to the recipient 350. If the network does not involve the Internet, then the message is sent across whatever network is being employed. En route to the recipient the e-mail goes to a standard SMTP mail server (e.g., Sendmail) 315, which filters mail with the multimedia message extractor module 320. In a preferred embodiment employing Sendmail for the SMTP mail server, Sendmail's plug-in architecture is employed. Here, the multimedia message extractor 320 talks to the Sendmail SMTP mail server 315 (e.g., version 8.10, or later), which includes support for "Milter" plug-ins. The Sendmail Mail Filter API (Milter) provides an interface for third-party software to validate and modify messages as they pass through the mail transport system. Filters can process messages' connection (IP) information, envelope protocol elements, message headers, and/or message body contents, and modify a message's recipients, headers, and body. Using Sendmail's corresponding configuration file, one can specify which filters are to be applied, and in what order, allowing an administrator to combine multiple independently-developed filters. Thus in this manner, the Milter plug-in architecture allows a developer to, in effect, plug into the e-mail delivery system for inserting custom subroutines or other processing. Accordingly, in the preferred embodiment, the multimedia message extractor 320 is created as a Sendmail-compatible Milter plug-in. For further description of Sendmail's Milter, see, e.g., "Filtering Mail with Sendmail" available from Sendmail, Inc. (and currently available via the Internet at http://www.sendmail.com/de/partner/resources/development/-milter_api/), the disclosure of which is hereby incorporated by reference.")(Paragraphs [0014, 0093]).

As per claim 4, Kirani teaches a communications system wherein the most capable protocol comprises Outlook Web Access (OWA) (i.e. "FIG. 3 is a high-level block

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diagram illustrating an e-mail system modified in accordance with the present invention. As shown in FIG. 3, the working environment of the system includes a message originator (i.e., sender) 300, for instance using a wireless device 303 and/or an Internet-connected PC 306, the public Internet (shown at 310a) connecting a sender to a Sendmail SMTP mail server 315 (available from Sendmail, Inc. of Emeryville, Calif.), a multimedia message extractor 320, a media storage repository 325 (which consists of a media database and a large storage disk), an authentication database 330, an HTTP media delivery server 335, and the public Internet (again shown at 310b) connecting the mail services to a recipient 350, for instance using another wireless device and/or an Internet-connected PC (not shown). (Internet 310a and Internet 310b both represent the public Internet, but are shown as separate components for simplification of the diagram.) If desired, the public Internet components may instead be a LAN or other private network depending upon the type of network serviced by the mail server." "The multimedia message extractor 320 also communicates with the authentication database 330 to ensure that the sender is registered with the system, and if not, may optionally create an account for the user automatically. The authentication database 330 may also know the device type of the recipient 350 at this point (e.g., based on user registration). Once authentication has been provided by the authentication database 330, the media storage repository 325 may be invoked to reformat/transform a particular target attachment (i.e., according to target device criteria/capabilities), including storing both the original version and the reformatted version. The multimedia message extractor 320 copies the original attachment, and a reformatted copy, if one was made, to the media storage repository 325." "FIG. 6 represents a high-level method 600 comprising the sequential steps in the process of receiving e-mail from the present invention via the link (URL). At step 601, the message recipient clicks on the link delivered in the e-mail body, typically from a Web-enabled the mail client software (e.g., Microsoft Outlook with Internet Explorer). This invocation results in an HTTP request being sent to the HTTP media delivery server; the request contains both the recipient identification and any transform parameters (if any) in the media database. At step 602, if the invoked link and recipient are valid, the system delivers the target attachment. At step 603, if the link is bad or invalid, the Milter facility, the Sendmail filter protocol, delivers an applicable error message to the recipient. Typical of e-mail activity, the recipient may forward the message, with the URL attached, to

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several other "new" recipients. They, in turn, when accessing the attachment by clicking on the URL they received, proceed to register their client device types and opt for format preferences, if this is their first time using the system." (Paragraphs [0080, 0094], 0117).

As per claims 5, 16, 20, 24, and 28, Kirani does not explicitly teach a communications system wherein the common interface protocol is based upon a Web-based distributed authoring and versioning (WebDAV) protocol.

Gresham teaches a communications system wherein the common interface protocol is based upon a Web-based distributed authoring and versioning (WebDAV) protocol (i.e. "Some messages are accessible directly via HTTP, such as when using XML or WebDAV. Referring to FIG. 11, server 20 includes an HTML web application that requests the passenger to enter their message server address, username and password for this type of retrieval, such as for Microsoft Exchange 2000. Server 20 passes this information to station 90." "FIG. 15 illustrates a proxy send with an HTML terminal and object orientation, such as XML or WebDAV. Server 20 provides an HTML web application to terminal 40 and requests the passenger enter their message server address, username, and password. Server 20 then provides a web-based client to compose messages. The passenger composes a message and approves it to be sent." (Paragraphs [0155, 0169])).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Kirani with the teachings of Gresham to include a communications system wherein the common interface protocol is based upon a Web-based distributed authoring and versioning (WebDAV) protocol with the motivation to transferring and displaying multimedia data on various types of devices, particularly those with wireless connectivity (Paragraph [0004], Kirani).

As per claim 6, Kirani teaches a communications system wherein said mobile wireless communications devices send access requests (i.e. "FIG. 3 is a high-level block diagram illustrating an e-mail system modified in accordance with the present invention. As shown in FIG. 3, the working environment of the system includes a message originator (i.e., sender) 300, for instance using a wireless device 303 and/or an Internet-connected PC 306, the public Internet (shown at 310a) connecting a sender to a Sendmail SMTP mail server 315 (available from Sendmail, Inc. of Emeryville, Calif.), a multimedia message extractor 320, a media storage repository 325 (which consists of a media database and a large storage disk), an authentication database 330, an HTTP media delivery server 335, and the public Internet (again shown at 310b) connecting the mail services to a recipient 350, for instance using another wireless device and/or an Internet-connected PC (not shown). (Internet 310a and Internet 310b both represent the public Internet, but are shown as separate components for simplification of the diagram.) If desired, the public Internet components may instead be a LAN or other private network depending upon the type of network serviced by the mail server." "The multimedia message extractor 320 also communicates with the authentication database 330 to ensure that the sender is registered with the system, and if not, may optionally create an account for the user automatically. The authentication database 330 may also know the device type of the recipient 350 at this point (e.g., based on user registration). Once authentication has been provided by the authentication database 330, the media storage repository 325 may be invoked to reformat/transform a particular target attachment (i.e., according to target device criteria/capabilities), including storing both the original version and the reformatted version. The multimedia message extractor 320 copies the original attachment, and a reformatted copy, if one was made, to the media storage repository 325." "FIG. 6 represents a high-level method 600 comprising the sequential steps in the process of receiving e-mail from the present invention via the link (URL). At step 601, the message recipient clicks on the link delivered in the e-mail body, typically from a Web-enabled the mail client software (e.g., Microsoft Outlook with Internet Explorer). This invocation results in an HTTP request being sent to the HTTP media delivery server; the request contains both the recipient identification and any transform parameters (if any) in the media database. At step 602,

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if the invoked link and recipient are valid, the system delivers the target attachment. At step 603, if the link is bad or invalid, the Milter facility, the Sendmail filter protocol, delivers an applicable error message to the recipient. Typical of e-mail activity, the recipient may forward the message, with the URL attached, to several other "new" recipients. They, in turn, when accessing the attachment by clicking on the URL they received, proceed to register their client device types and opt for format preferences, if this is their first time using the system." (Paragraphs [0080, 0094], 0117); and wherein said data storage devices send data responsive to access requests (i.e. "FIG. 3 is a high-level block diagram illustrating an e-mail system modified in accordance with the present invention. As shown in FIG. 3, the working environment of the system includes a message originator (i.e., sender) 300, for instance using a wireless device 303 and/or an Internet-connected PC 306, the public Internet (shown at 310a) connecting a sender to a Sendmail SMTP mail server 315 (available from Sendmail, Inc. of Emeryville, Calif.), a multimedia message extractor 320, a media storage repository 325 (which consists of a media database and a large storage disk), an authentication database 330, an HTTP media delivery server 335, and the public Internet (again shown at 310b) connecting the mail services to a recipient 350, for instance using another wireless device and/or an Internet-connected PC (not shown). (Internet 310a and Internet 310b both represent the public Internet, but are shown as separate components for simplification of the diagram.) If desired, the public Internet components may instead be a LAN or other private network depending upon the type of network serviced by the mail server." "The multimedia message extractor 320 also communicates with the authentication database 330 to ensure that the sender is registered with the system, and if not, may optionally create an account for the user automatically. The authentication database 330 may also know the device type of the recipient 350 at this point (e.g., based on user registration). Once authentication has been provided by the authentication database 330, the media storage repository 325 may be invoked to reformat/transform a particular target attachment (i.e., according to target device criteria/capabilities), including storing both the original version and the reformatted version. The multimedia message extractor 320 copies the original attachment, and a reformatted copy, if one was made, to the media storage repository 325." "FIG. 6 represents a high-level

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method 600 comprising the sequential steps in the process of receiving e-mail from the present invention via the link (URL). At step 601, the message recipient clicks on the link delivered in the e-mail body, typically from a Web-enabled the mail client software (e.g., Microsoft Outlook with Internet Explorer). This invocation results in an HTTP request being sent to the HTTP media delivery server; the request contains both the recipient identification and any transform parameters (if any) in the media database. At step 602, if the invoked link and recipient are valid, the system delivers the target attachment. At step 603, if the link is bad or invalid, the Milter facility, the Sendmail filter protocol, delivers an applicable error message to the recipient. Typical of e-mail activity, the recipient may forward the message, with the URL attached, to several other "new" recipients. They, in turn, when accessing the attachment by clicking on the URL they received, proceed to register their client device types and opt for format preferences, if this is their first time using the system." (Paragraphs [0080, 0094], 0117).

As per claim 7, Kirani teaches a communications system wherein the access requests comprise at least one authentication request (i.e. "FIG. 3 is a high-level block diagram illustrating an e-mail system modified in accordance with the present invention. As shown in FIG. 3, the working environment of the system includes a message originator (i.e., sender) 300, for instance using a wireless device 303 and/or an Internet-connected PC 306, the public Internet (shown at 310a) connecting a sender to a Sendmail SMTP mail server 315 (available from Sendmail, Inc. of Emeryville, Calif.), a multimedia message extractor 320, a media storage repository 325 (which consists of a media database and a large storage disk), an authentication database 330, an HTTP media delivery server 335, and the public Internet (again shown at 310b) connecting the mail services to a recipient 350, for instance using another wireless device and/or an Internet-connected PC (not shown). (Internet 310a and Internet 310b both represent the public Internet, but are shown as separate components for simplification of the diagram.) If desired, the public Internet components may instead be a LAN or other private network depending upon the type of network serviced by the mail server." "The multimedia message extractor 320 also communicates with the authentication database 330 to ensure that the sender is registered with the

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system, and if not, may optionally create an account for the user automatically. The authentication database 330 may also know the device type of the recipient 350 at this point (e.g., based on user registration). Once authentication has been provided by the authentication database 330, the media storage repository 325 may be invoked to reformat/transform a particular target attachment (i.e., according to target device criteria/capabilities), including storing both the original version and the reformatted version. The multimedia message extractor 320 copies the original attachment, and a reformatted copy, if one was made, to the media storage repository 325."(Paragraphs [0080, 0094]).

As per claim 8, Kirani teaches a communications system wherein the at least one authentication request comprises a user identifier and a user password (i.e. "FIG. 3 is a high-level block diagram illustrating an e-mail system modified in accordance with the present invention. As shown in FIG. 3, the working environment of the system includes a message originator (i.e., sender) 300, for instance using a wireless device 303 and/or an Internet-connected PC 306, the public Internet (shown at 310a) connecting a sender to a Sendmail SMTP mail server 315 (available from Sendmail, Inc. of Emeryville, Calif.), a multimedia message extractor 320, a media storage repository 325 (which consists of a media database and a large storage disk), an authentication database 330, an HTTP media delivery server 335, and the public Internet (again shown at 310b) connecting the mail services to a recipient 350, for instance using another wireless device and/or an Internet-connected PC (not shown). (Internet 310a and Internet 310b both represent the public Internet, but are shown as separate components for simplification of the diagram.) If desired, the public Internet components may instead be a LAN or other private network depending upon the type of network serviced by the mail server." "The multimedia message extractor 320 also communicates with the authentication database 330 to ensure that the sender is registered with the system, and if not, may optionally create an account for the user automatically. The authentication database 330 may also know the device type of the recipient 350 at this point (e.g., based on user registration). Once authentication has been provided by the authentication database 330, the media storage repository 325 may be invoked to reformat/transform a particular target

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attachment (i.e., according to target device criteria/capabilities), including storing both the original version and the reformatted version. The multimedia message extractor 320 copies the original attachment, and a reformatted copy, if one was made, to the media storage repository 325." (Paragraphs [0080, 0094]).

As per claim 9, Kirani teaches a communications system wherein at least one of said data storage devices is for electronic mail (e-mail) messages (i.e. "The capabilities of the recipient's type of client device are the limiting factor defining the appropriate degree of transformation to apply to subsequent message attachments for delivery to the device. During operation, a delivery server can determine the capabilities of a particular recipient's device type and/or Internet bandwidth by either interaction with the recipient or from database records of antecedent interaction(s) with the recipient. This determination may be based on previously-set configuration information (e.g., using user-specified configuration settings), or may be detected dynamically (e.g., during a request to retrieve e-mail messages from a particular user's e-mail in-box). In instances where compatibility with existing communication protocols is desired, client device configuration information is specified by the recipient user beforehand, for instance, via a Web-page data entry form. If compatibility with existing communication protocols is not required, a communication protocol may be employed that includes protocol commands that allow the capabilities of a target device to be determined without ever interacting with the user." "In cases wherein the capabilities of the client device are determined by database records of antecedent user interactions and where the user uses multiple types of client devices to receive messages from the system, the present invention applies a transformation on the current attachment that corresponds to the least capable in the set of those multiple devices. When applying a protocol allowing determination of recipient device type (e.g., Wireless Application Protocol (WAP)), the present invention may automatically perform the optimum transformation/formatting specific to the targeted type of device, thereby rendering user input unnecessary. In such a WAP-enabled embodiment, if the user used several types of client devices to receive e-mail, the system is capable of automatically delivering and storing multiple formats of all the multimedia attachments." (Paragraphs [0038-0039]); and wherein said at

least one storage device responds to the at least one authentication request with a root folder and target e-mailbox capabilities (i.e. "The capabilities of the recipient's type of client device are the limiting factor defining the appropriate degree of transformation to apply to subsequent message attachments for delivery to the device. During operation, a delivery server can determine the capabilities of a particular recipient's device type and/or Internet bandwidth by either interaction with the recipient or from database records of antecedent interaction(s) with the recipient. This determination may be based on previously-set configuration information (e.g., using user-specified configuration settings), or may be detected dynamically (e.g., during a request to retrieve e-mail messages from a particular user's e-mail inbox). In instances where compatibility with existing communication protocols is desired, client device configuration information is specified by the recipient user beforehand, for instance, via a Web-page data entry form. If compatibility with existing communication protocols is not required, a communication protocol may be employed that includes protocol commands that allow the capabilities of a target device to be determined without ever interacting with the user." "In cases wherein the capabilities of the client device are determined by database records of antecedent user interactions and where the user uses multiple types of client devices to receive messages from the system, the present invention applies a transformation on the current attachment that corresponds to the least capable in the set of those multiple devices. When applying a protocol allowing determination of recipient device type (e.g., Wireless Application Protocol (WAP)), the present invention may automatically perform the optimum transformation/formatting specific to the targeted type of device, thereby rendering user input unnecessary. In such a WAP-enabled embodiment, if the user used several types of client devices to receive e-mail, the system is capable of automatically delivering and storing multiple formats of all the multimedia attachments.")(Paragraphs [0038-0039]).

As per claim 10, Kirani teaches a communications system wherein said protocol interface device generates an error responsive to at least one non-supported operating

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protocol (i.e. "CGI is an acronym for Common Gateway Interface, a specification for transferring information between a World Wide Web server and a CGI program. A CGI program is any program designed to accept and return data that conforms to the CGI specification. The program could be written in any programming language, including C, Perl, Java, or Visual Basic." "In basic system operation, the message originator (sender) 300 sends a message along with an attachment across the Internet 310a to the recipient 350. If the network does not involve the Internet, then the message is sent across whatever network is being employed. En route to the recipient the e-mail goes to a standard SMTP mail server (e.g., Sendmail) 315, which filters mail with the multimedia message extractor module 320. In a preferred embodiment employing Sendmail for the SMTP mail server, Sendmail's plug-in architecture is employed. Here, the multimedia message extractor 320 talks to the Sendmail SMTP mail server 315 (e.g., version 8.10, or later), which includes support for "Milter" plug-ins. The Sendmail Mail Filter API (Milter) provides an interface for third-party software to validate and modify messages as they pass through the mail transport system. Filters can process messages' connection (IP) information, envelope protocol elements, message headers, and/or message body contents, and modify a message's recipients, headers, and body. Using Sendmail's corresponding configuration file, one can specify which filters are to be applied, and in what order, allowing an administrator to combine multiple independently-developed filters. Thus in this manner, the Milter plug-in architecture allows a developer to, in effect, plug into the e-mail delivery system for inserting custom subroutines or other processing. Accordingly, in the preferred embodiment, the multimedia message extractor 320 is created as a Sendmail-compatible Milter plug-in. For further description of Sendmail's Milter, see, e.g., "Filtering Mail with Sendmail" available from Sendmail, Inc. (and currently available via the Internet at http://www.sendmail.com/de/partner/resources/development/-milter_api/), the disclosure of which is hereby incorporated by reference.")(Paragraphs [0014, 0093]).

As per claim 11, Kirani teaches a communications system further comprising a wide area network (WAN) connecting at least one of said mobile wireless communications devices with said protocol interface device (i.e. "The capabilities of the

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recipient's type of client device are the limiting factor defining the appropriate degree of transformation to apply to subsequent message attachments for delivery to the device. During operation, a delivery server can determine the capabilities of a particular recipient's device type and/or Internet bandwidth by either interaction with the recipient or from database records of antecedent interaction(s) with the recipient. This determination may be based on previously-set configuration information (e.g., using user-specified configuration settings), or may be detected dynamically (e.g., during a request to retrieve e-mail messages from a particular user's e-mail in-box). In instances where compatibility with existing communication protocols is desired, client device configuration information is specified by the recipient user beforehand, for instance, via a Web-page data entry form. If compatibility with existing communication protocols is not required, a communication protocol may be employed that includes protocol commands that allow the capabilities of a target device to be determined without ever interacting with the user." "In cases wherein the capabilities of the client device are determined by database records of antecedent user interactions and where the user uses multiple types of client devices to receive messages from the system, the present invention applies a transformation on the current attachment that corresponds to the least capable in the set of those multiple devices. When applying a protocol allowing determination of recipient device type (e.g., Wireless Application Protocol (WAP)), the present invention may automatically perform the optimum transformation/formatting specific to the targeted type of device, thereby rendering user input unnecessary. In such a WAP-enabled embodiment, if the user used several types of client devices to receive e-mail, the system is capable of automatically delivering and storing multiple formats of all the multimedia attachments.")(Paragraphs [0038-0039]).

As per claim 12, Kirani teaches a communications system further comprising a wide area network (WAN) connecting at least one of said data storage devices with said protocol interface device (i.e. "The capabilities of the recipient's type of client device are the limiting factor defining the appropriate degree of transformation to apply to subsequent message attachments for delivery to the device. During operation, a delivery server can determine the capabilities of a particular

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recipient's device type and/or Internet bandwidth by either interaction with the recipient or from database records of antecedent interaction(s) with the recipient. This determination may be based on previously-set configuration information (e.g., using user-specified configuration settings), or may be detected dynamically (e.g., during a request to retrieve e-mail messages from a particular user's e-mail in-box). In instances where compatibility with existing communication protocols is desired, client device configuration information is specified by the recipient user beforehand, for instance, via a Web-page data entry form. If compatibility with existing communication protocols is not required, a communication protocol may be employed that includes protocol commands that allow the capabilities of a target device to be determined without ever interacting with the user." "In cases wherein the capabilities of the client device are determined by database records of antecedent user interactions and where the user uses multiple types of client devices to receive messages from the system, the present invention applies a transformation on the current attachment that corresponds to the least capable in the set of those multiple devices. When applying a protocol allowing determination of recipient device type (e.g., Wireless Application Protocol (WAP)), the present invention may automatically perform the optimum transformation/formatting specific to the targeted type of device, thereby rendering user input unnecessary. In such a WAP-enabled embodiment, if the user used several types of client devices to receive e-mail, the system is capable of automatically delivering and storing multiple formats of all the multimedia attachments.")(Paragraphs [0038-0039]).

Contact Information

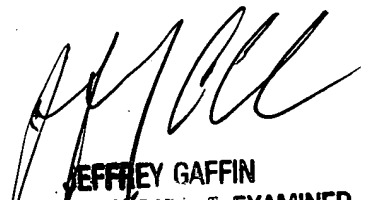
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhan M. Syed whose telephone number is 571-272-7191. The examiner can normally be reached on 8:30AM-5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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